

What is claimed is:

1      1. A distributed component system in a network comprising:  
2      a client node configured to process client activation  
3      requests; and  
4      a server node configured to monitor activation requests from  
5      the client node, said node operating to enable the client node to  
6      activate remote components on available server nodes without  
7      specific names or capabilities of nodes in the network servicing  
8      the requests.

1      2. The system of claim 1, wherein said network comprises a  
2      local-area network, a wide-area network, or Internet.

1      3. The system of claim 1, wherein said activation requests  
2      are processed by a client node that includes enhancements to a  
3      network protocol of the client node.

1      4. The system of claim 1, wherein said server node include  
2      enhancements to a network protocol of the server node.

1      5. The system of claim 1, wherein said distributed system  
2      comprises a DCOM framework.

1       6. A distributed computing system in a network having a  
2 client and a server, the system comprising:

3       a first module configured to augment activation capabilities  
4 of the client by intercepting and processing machine-independent  
5 client activation requests, and

6       a second module coupled to the server, said second module  
7 configured to monitor requests on the server by the client, said  
8 first and second modules enabling the client to trigger creation  
9 of remote components without specific names or capabilities of  
10 network nodes servicing that creation.

B       7. A method comprising:

1       2       receiving a machine-independent activation request from a  
3 client in a network;

4       multicasting said activation request to the network; and

5       receiving capability information from servers available to  
6 service said activation request.

1       8. The method of claim 7, wherein the capability  
2 information includes a list of server IP addresses or UNC names  
3 of servers that have the ability to service a request for a  
4 specific CLSID.

1        9. The method of claim 7, wherein the capability  
2        information includes an interface through a CLSID directly.

1        10. A method comprising:  
2                monitoring at a server a specific port to receive a machine-  
3                independent client activation request within a network;  
4                retrieving a client address from an IP packet associated  
5                with the request; and  
6                returning capability information of the server to the client  
address.

1        11. The method of claim 10, wherein monitoring the specific  
2        port includes monitoring a port that is tied to a multicast IP  
3        address.

1        12. The method of claim 10, wherein returning includes  
2        returning a server IP address.

1        13. The method of claim 10, wherein returning includes  
2        using a distributed system creation mechanism to create, package,  
3        and return an interface pointer in a location transparent form.

1       14. A method comprising:  
2            receiving a machine independent activation request from a  
3            client in a network;  
4            multicasting said activation request to the network;  
5            requesting capability information from servers available to  
6            service said activation request;  
7            monitoring a port that is tied to a multicast IP address;  
8            retrieving a client address from an IP packet; and  
9            returning capability information of the server to the client  
10          address.

15. The method of claim 14, further comprising:  
16        providing a CLSID, an interface identifier, a maximum and  
17        minimum response wait time, a maximum and minimum response count,  
18        and whether server names or IP addresses should be returned,  
19        before the client requests capability information from the  
20        servers.

1        16. The method of claim 15, wherein returning capability  
2        information includes returning one to many server names or IP  
3        addresses capable of servicing said activation request for the  
4        particular CLSID and information identifier requested.

1       17. The method of claim 15, wherein returning capability  
2       information includes returning a pointer to the interface  
3       identifier.

1       18. The method of claim 17, wherein said pointer is  
2       packaged into a location transparent form.

1       19. The method of claim 18, wherein the location  
2       transparent form is a DCOM remote OBJREF in the form of a MEOW  
3       packet.

1       20. A computer program, residing on a computer readable  
2       medium, the program comprising executable instructions that  
3       enable the computer to:

4           receive a machine-independent activation request from a  
5       client in a network;

6           multicast said activation request to the network; and

7           receive capability information from servers available to  
8       service said activation request.

1        21. A computer program, residing on a computer readable  
2        medium, the program comprising executable instructions that  
3        enable the computer to:

4            monitor at a server a specific port that is tied to a  
5        multicast IP address to receive a machine-independent client  
6        activation request within a network;

7            retrieve a client address from an IP packet associated with  
8        the request; and

9            return capability information of the server to the client  
10        address.

11        22. A computer program, residing on a computer readable  
12        medium, the program comprising executable instructions that  
13        enable the computer to:

14            receive a machine-independent activation request from a  
15        client in a network;

16            multicast said activation request to the network;

17            request capability information from servers available to  
18        service said activation request;

19            monitor a port that is tied to a multicast IP address;

20            retrieve a client address from an IP packet; and

21            return capability information of the server to the client  
22        address.

1           23. A distributed component network comprising:  
2           client nodes configured to be able to request activation of  
3           remote components at run-time without specific names or  
4           capabilities of nodes servicing those requests; and  
5           server nodes operating to monitor the requests and respond  
6           appropriately to service the requests.

*B1*  
*end*